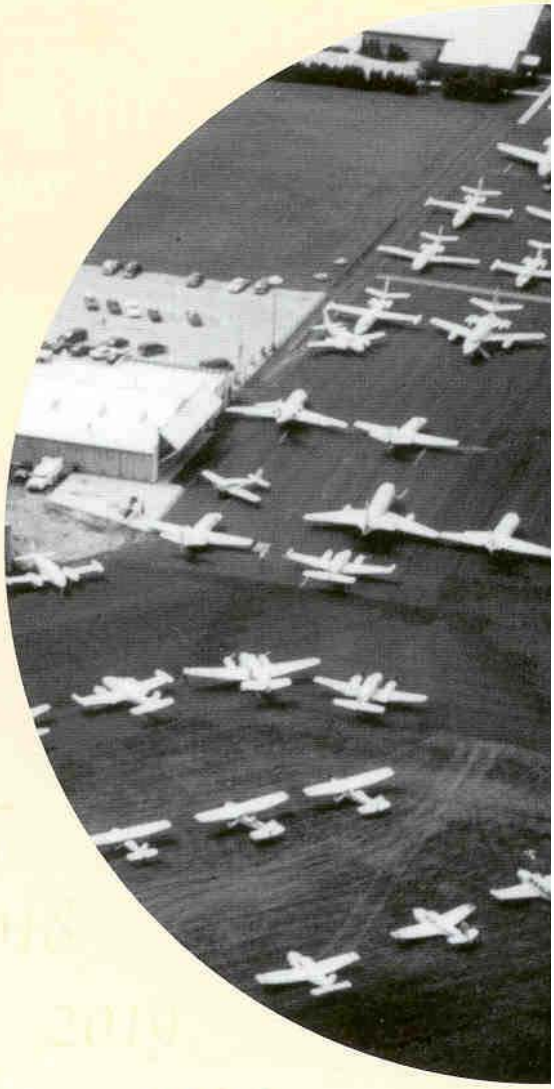
TRANSPORTATION FOR THE 21ST CENTURY

WISCONSIN STATE AIRPORT SYSTEM PLAN 2020

SUMMARY REPORT



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Introduction

Airports, aviation and aviation-related industries play a significant role in the economic success of Wisconsin communities. To ensure full participation in the world economy, Wisconsin has developed an advanced interconnected system of highway, air, rail and water travel that can take people and goods from one city to any destination in the world. Keeping the entire transportation system in good operating condition – for all modes – over the next 21 years requires a set of action plans. This report focuses on just one of these plans, the ***Wisconsin State Airport System Plan 2020***.

The Wisconsin State Airport System Plan 2020 provides a framework for the preservation and enhancement of a system of public-use airports adequate to meet the current and future aviation needs of the State of Wisconsin.

Plan Purpose and Scope

This plan determines the number, location and type of aviation facilities required to adequately serve the state's aviation needs over a 21-year planning period, 2000 through 2020. The plan defines the S*tate Airport System* and establishes the current and future role of each airport in the system. The plan also forecasts the level of public investment required to:

- upgrade substandard features of the system such as the widening of existing runways and taxiways to meet federal and state standards;

- preserve the airport system in the future such as the replacement of existing pavements and lighting systems to meet federal and state standards; and,

- enhance the system in the future such as the construction of runway extensions and new runways in order to meet forecast increases in aviation demand.

This plan is used by WisDOT's Bureau of Aeronautics to pre-qualify airport improvement projects submitted by airport sponsors for funding consideration. If a proposed airport project is not in conformance with the plan, the sponsor will need to satisfactorily demonstrate how the proposed project meets the planning and design guidelines established by the plan. If this is done, the plan will be amended accordingly.

This plan also provides a long-range perspective for public-sector investment decisions. Unlike the State Trunk Highway System, WisDOT does not own any of the airports comprising the *State Airport System* and does not initiate airport improvement projects. Airport owners initiate projects by submitting funding requests to either the Bureau of Aeronautics or to the Federal Aviation Administration (FAA). Consequently, the implementation of a system plan requires a continuing partnership between WisDOT and airport owners. The ***Five-Year Airport Improvement Program***, prepared and updated annually by the Bureau of Aeronautics, is a product of this partnership and is the primary mechanism for implementing the statewide and regional system plans.

The preparation of this plan was coordinated with the preparation of the ***Regional Airport System***

Plan for Southeastern Wisconsin: 2010. The regional plan was prepared by the staff of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and was formally adopted by the Commission in December 1996. The regional plan differs from the statewide plan in two important respects. First, the horizon year for the regional plan is 2010, whereas the horizon year for the state plan is 2020. Second, the regional plan is more detailed than the statewide plan. The findings and recommendations contained in SEWRPC's regional plan are consistent with the findings and recommendations of this plan.

The State Airport System

At the outset of the planning process, the *State Airport System* was defined to be 100 of Wisconsin's 143 public-use airports. At that time, 93 of Wisconsin's public-use airports were owned by a public body (i.e., county, city, village or town). These airports were automatically included in the *State Airport System*.

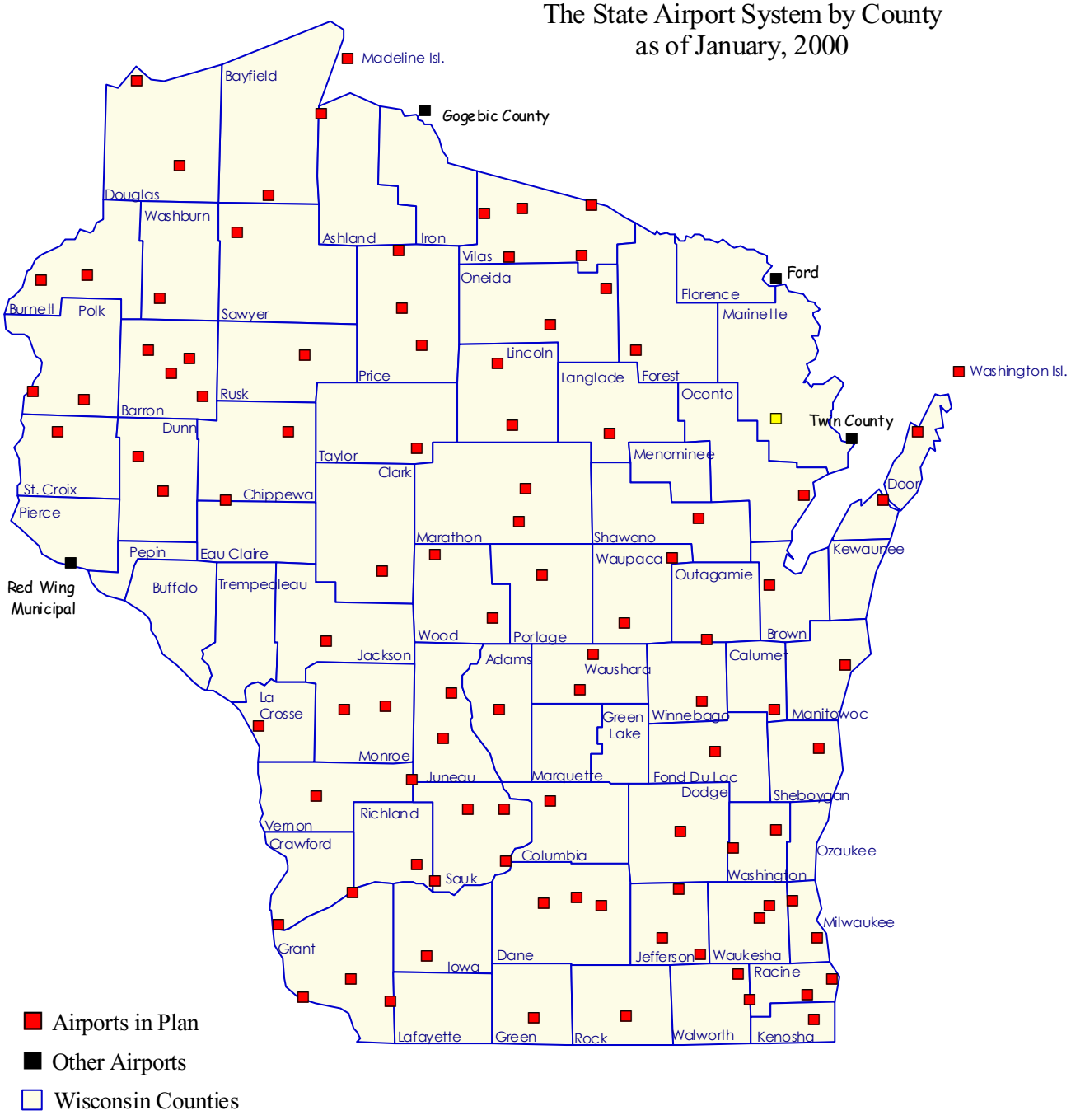
Two privately-owned, public-use airports with strong municipal ties -- Boscobel and Sauk Prairie -- were also included in the *State Airport System*. At the outset of the planning process, the City of Boscobel was actively pursuing the acquisition of the Boscobel Airport and the Village of Sauk City was leasing the runway of the privately-owned Sauk Prairie Airport.

Five other privately-owned, public-use airports were also included in the *State Airport System* because they provided general aviation relief to nearby airports with commercial air service. The airports in this category were: Morey (Middleton) and Blackhawk (Cottage Grove) in Dane County; John H. Batten (Racine) and Sylvania (Sturtevant)in Racine County; and, Capitol Drive (Brookfield) in Waukesha County.

During the course of the planning process, two of the seven privately-owned airports included in the *State Airport System* were acquired by public bodies. In June 1998, the City of Boscobel purchased the Boscobel Airport and, in December 1998, the City of Middleton purchased Morey Airport. Thus, as of January 2000, the State Airport System is comprised of 95 publicly-owned, public-use airports and 5 privately-owned, public use airports. All airports included in the system are eligible for state airport improvement grants and 83 are eligible for federal grants as well. The locations of the airports comprising the *State Airport System* relative to Wisconsin's counties are graphically shown in Figure 1.

Although 43 of Wisconsin's public-use airports were not included in the *State Airport System* when the system was initially defined, these privately-owned airports also make a positive contribution to Wisconsin's aviation system and serve important aviation needs. In addition, there are a number of airports located in adjacent states which directly serve Wisconsin aviation needs and which, in some cases, are jointly owned by a Wisconsin local unit of government.

Figure 1
The State Airport System by County
as of January, 2000



Airport Role

The airport classification scheme developed for this plan expands upon the FAA's traditional classification system for defining the role, or function, of an airport. In order to distinguish between airports used by faster and heavier, small general aviation aircraft and those used by slower and lighter, small general aviation aircraft, the *Basic Utility* classification was divided into two categories, *Basic Utility-A* and *Basic Utility-B*. The *General Utility* category was not altered. The *Transport* classification was expanded to *Transport/Corporate* in order to account for corporate aircraft having performance characteristics similar to the turboprop or turbojet aircraft operated by regional and commuter airlines. The *Air Carrier* category was broadened to include airports with air cargo service and became *Air Carrier/Air Cargo*. The resultant classification scheme is defined as follows.

Air Carrier/Cargo (AC/C) airports are designed to accommodate virtually all aircraft up to and, in some cases, including, wide body jets and large military transports. Airports in this category are usually referenced by the type of air carrier service being provided.

- ***Short-haul air carrier*** airports serve scheduled, nonstop, airline markets and routes of less than 500 miles. Short-haul air carriers typically use aircraft weighing less than 60,000 pounds. In Wisconsin, short-haul air carrier airports normally have a primary runway length of 6,500 to 7,800 feet.

- ***Medium-haul air carrier*** airports serve scheduled, nonstop, airline markets and routes of between 500 and 1,500 miles. Medium-haul air carriers typically use aircraft weighing 60,000 to 300,000 pounds. In Wisconsin, medium-haul air carrier airports normally have a primary runway length of 7,800 to 8,800 feet.

- ***Long-haul air carrier*** airports serve scheduled, nonstop, airline markets and routes of over 1,500 miles. Long-haul air carriers typically use wide-bodied jet aircraft weighing more than 300,000 pounds. In Wisconsin, long-haul air carrier airports normally have a primary runway length of 8,800 to 9,800 feet.

Transport/Corporate (T/C) airports are intended to serve corporate jets, small passenger and cargo jet aircraft used in regional service and small airplanes (piston or turboprop) used in commuter air service. These aircraft generally have a gross takeoff weight of less than 60,000 pounds, with approach speeds below 141 knots and wingspans of less than 118 feet. In Wisconsin, airports in this category normally have a primary runway length of 4,800 to 6,800 feet.

General Utility (GU) airports are intended to serve virtually all small general aviation single and twin-engine aircraft, both piston and turboprop, with a maximum takeoff weight of 12,500 pounds or less. These aircraft generally have approach speeds below 121 knots and wingspans of less than 79 feet. Typically, these aircraft are used for business and charter flying and for personal reasons. In Wisconsin, airports in this category normally have a primary runway length of 3,900 to 4,800 feet.

Basic Utility (BU) airports are intended to serve all small single-engine piston aircraft and many of the smaller twin-engine piston aircraft with a gross takeoff weight of 12,500 pounds or less. These aircraft typically seat from two to six people and are now commonly used for business and some charter flying as well as a wide variety of activities including recreational and sport flying, training, and crop dusting. In Wisconsin, airports in this category normally have a primary runway length of 2,800 to 3,900 feet.

- ***Basic Utility-B (BU-B)*** airports are designed to accommodate aircraft of less than 12,500 pounds gross weight, with approach speeds below 121 knots and wingspans of less than 49 feet. Such aircraft can be either single-engine or twin-engine piston.

- ***Basic Utility-A (BU-A)*** airports are designed to accommodate aircraft of less than 6,000 pounds gross weight, with approach speeds below 91 knots and wingspans of less than 49 feet. Such aircraft are typically single-engine piston.

The only difference between an airport classified as *Transport/Corporate* and an airport classified as *Short-haul Air Carrier* is the absence or presence of commercial passenger air service. The aircraft used for transport/corporate purposes have virtually the same characteristics as those used for short-haul air carrier purposes.

Airport Classifications

Using the above described classification scheme, the role of each of the 100 airports included in the system was established for base year 1995. The classification process took into account existing conditions and planned near-term improvements as contained in airport master plans and/or airport layout plans. The future role of each airport in the system was determined through the application of the airport classification scheme to forecast conditions. This process yielded forecast changes in the classifications of three airports between 2010 and 2020. Chetek Municipal-Southworth and Crandon Municipal airports were projected to move from *Basic Utility-A* to *Basic Utility-B*. The Neillsville Municipal Airport was also forecast to move from *Basic Utility-B* to *General Utility*.–

Subsequent to the preparation of the forecast airport classifications described above, the Bureau of Aeronautics, using the same classification criteria developed for this plan and described above, officially reclassified five airports. During 1997, the Boscobel Airport was reclassified from *Basic Utility-B* to *General Utility,* the Iowa County Airport from *Basic Utility-B* to *Transport/Corporate,* and the Prairie du Chien Airport from *General Utility* to *Transport/Corporate*. In 1998, the Waupaca Municipal Airport was reclassified from *General Utility* to *Transport/Corporate*. In 1999, the Madeline Island Airport was reclassified from *Basic Utility-B* to *General Utility*.

The classification of each airport in the *State Airport System* for base year 1995 and for forecast years 2000, 2010 and 2020 are shown in Attachment #1. The number of airports in each classification category for this set of years is summarized in Table 1. For both Attachment #1 and Table 1, the classifications forecast for 2000, 2010 and 2020 reflect the reclassification actions taken by the Bureau of Aeronautics subsequent to the preparation of the original set of forecasts. The current (as of January 2000) classification of each airport comprising the *State Airport System*

Plan is graphically shown in Figure 2. The forecast classification of each airport for the year 2020 is graphically shown in Figure 3.

Table 1: Number of Airports by Classification Category

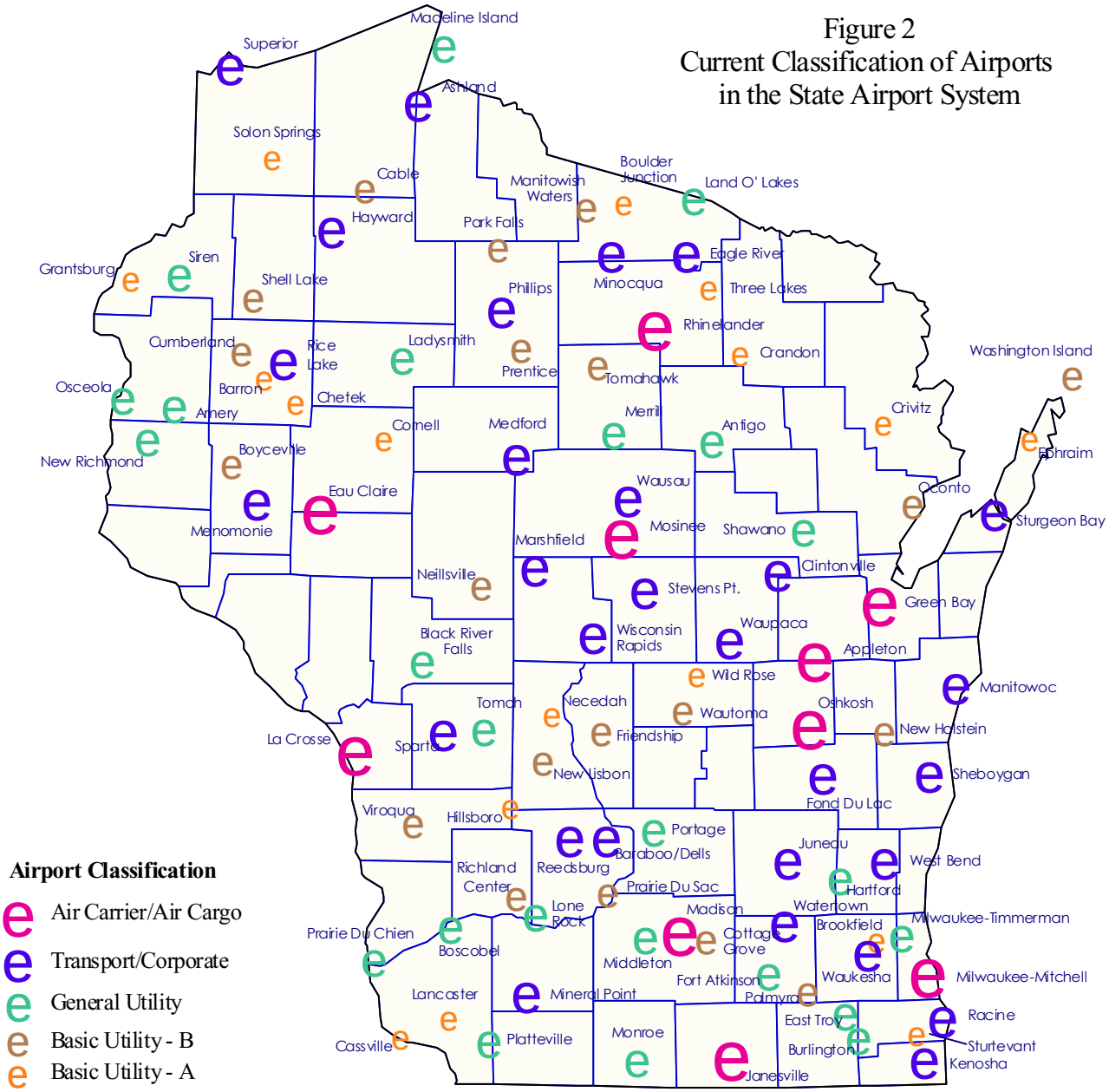
Classification Category	Base Year 1995	Forecast Years 2000	2010	2020
Basic Utility-A	17	17	17	15
Basic Utility-B	23	20	20	21
General Utility	23	23	23	24
Transport/Corporate	27	30	30	30
Air Carrier/Cargo	10	10	10	10
Statewide Total	**100**	**100**	**100**	**100**

As shown in Table 1, this plan envisions a very stable statewide system of airports. The same set of 100 airports comprising the *State Airport System* in base year 1995 was forecast to comprise the system in 2020. Thus the plan neither includes the addition of new airports to the *State Airport System,* nor the deletion of existing airports from the system.

Although only three airports were projected to be reclassified between 2000 and 2020, it is quite likely that more airports will be reclassified as aircraft owners, both individual and corporate, make decisions about the purchase and use of aircraft. Some of these aircraft could very well become "critical aircraft[1]" for specific airports and necessitate the reclassification of those airports. This will be particularly true at airports where corporate aviation is introduced or expanded. While it is recognized that this is likely to happen, it is very difficult to predict where it will happen. This is why the number of airports in the *Transport/Corporate* category was not forecast to increase between 2000 and 2020.

[1] Used in airport design, the aircraft which controls one or more design items such as runway length, lateral separation, etc., for a particular airport. The same aircraft may not be critical to all design items.

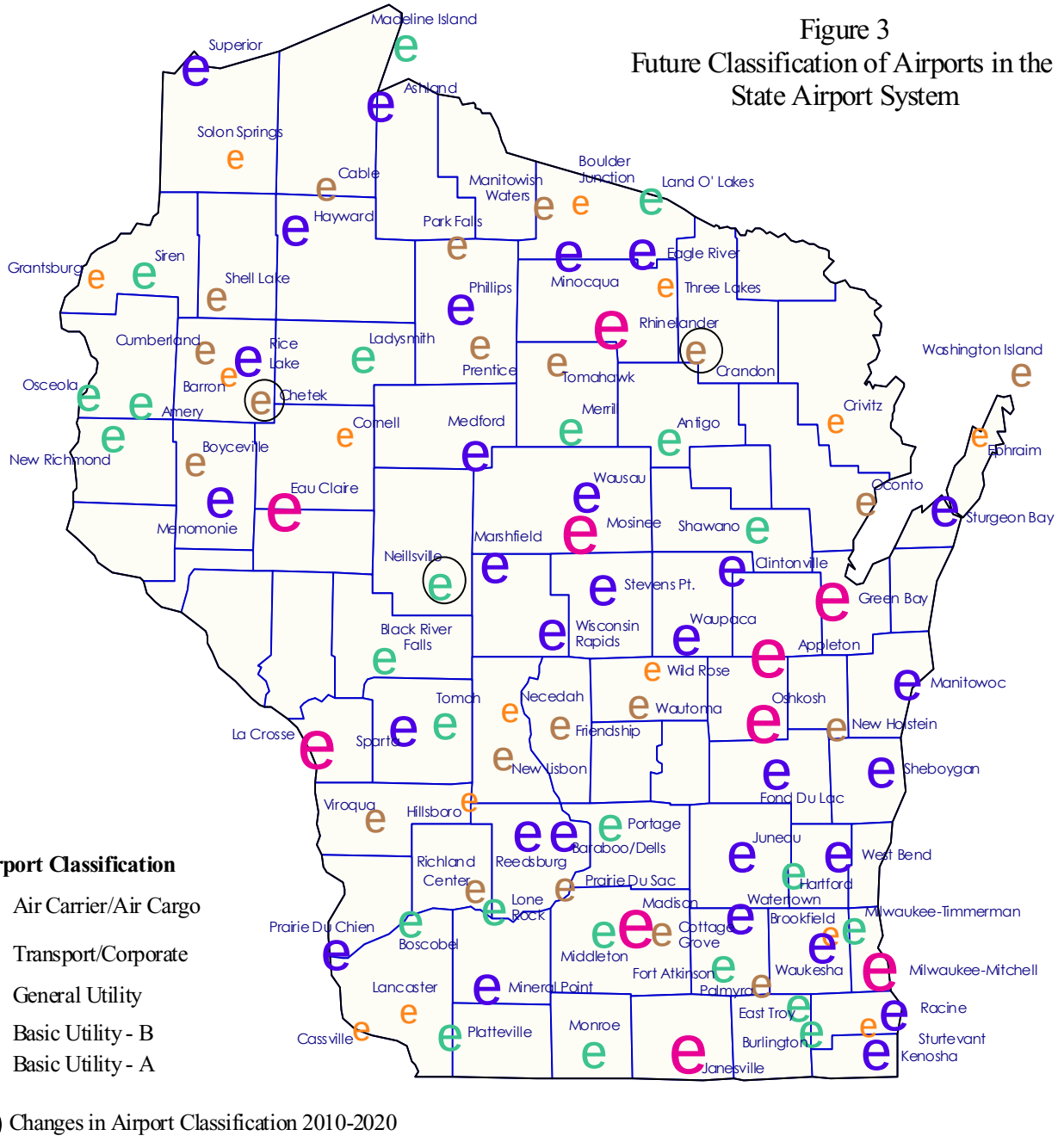
Figure 2
Current Classification of Airports
in the State Airport System



Airport Classification

- Air Carrier/Air Cargo
- Transport/Corporate
- General Utility
- Basic Utility - B
- Basic Utility - A

Figure 3
Future Classification of Airports in the State Airport System



Airport Classification

- Air Carrier/Air Cargo
- Transport/Corporate
- General Utility
- Basic Utility - B
- Basic Utility - A

Changes in Airport Classification 2010-2020

Commercial Air Passenger Service

The market for commercial air passenger service has two major components -- the *demand-side* and the *supply-side*. The demand for air passenger service is consumer driven. The supply-side is the service provided by the commercial airlines to meet travel demand. The airport is the place where consumers and suppliers interface. Since federal deregulation of the airline industry in 1979, airlines have had the freedom to decide which airports they will serve, the level of service they will provide, and the fares they will charge. A continuation of this deregulated environment throughout the 21-year planning period was assumed. Subsidized commercial air passenger service does not exist in Wisconsin and none has been assumed for the future.

Scheduled commercial air passenger service is provided at 12 airports in Wisconsin and has been projected to continue at those and only at those airports throughout the planning period. Nine airports in adjacent states also serve the Wisconsin demand for commercial air passenger service. The geographic locations of the airports serving Wisconsin's commercial air travel market are shown in Figure 4.

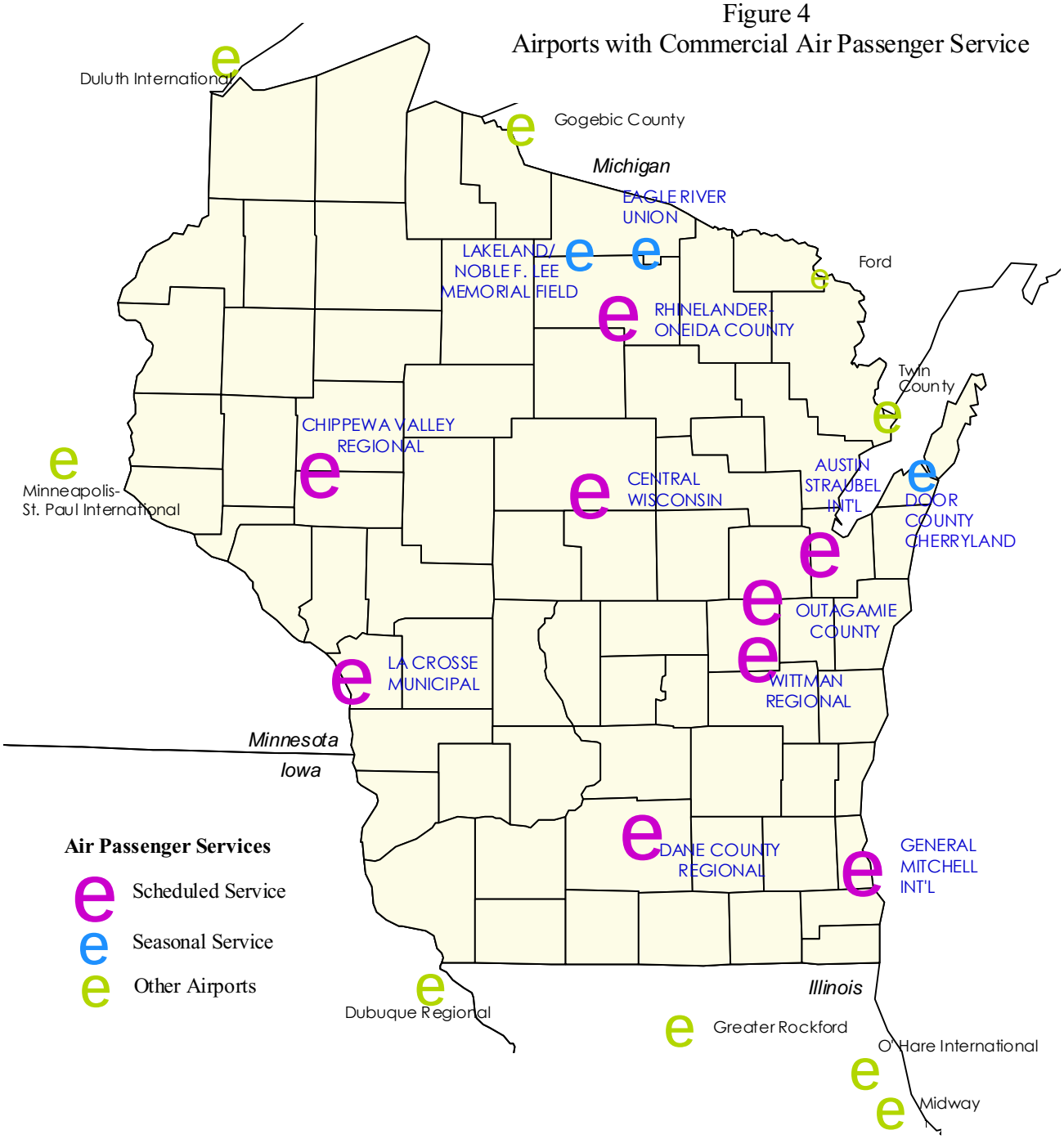
Nine Wisconsin airports have commercial air passenger service on a year-round basis -- Austin Straubel International (Green Bay); Central Wisconsin (Mosinee); Chippewa Valley Regional (Eau Claire); Dane County Regional (Madison); General Mitchell International (Milwaukee); La Crosse Municipal; Outagamie County (Appleton); Rhinelander-Oneida County; and, Wittman Regional (Oshkosh). General Mitchell International Airport (GMIA) is Wisconsin's dominant air carrier airport handling about 60 percent of the state's air carrier passengers.

The airports with seasonal service are Door County Cherryland (Sturgeon Bay), Eagle River Union, and Lakeland/Noble F. Lee Memorial (Minocqua). Because the service provided is seasonal, these three airports are classified as *Transport/Corporate* rather than *Air Carrier/Cargo*.

The airports in adjacent states serving the Wisconsin air travel market are: O'Hare International, Midway, and Greater Rockford in Illinois; Dubuque Regional in Iowa; Minneapolis-St. Paul International and Duluth International in Minnesota; Gogebic County, Twin County (Marinette/Menominee) and Ford Airport located in Michigan's Upper Peninsula and serving Forest, Florence and Marinette counties. These airports are readily accessible by automobile, bus, limousine and/or taxi for persons with ultimate trip origins and destinations within Wisconsin.

Given the geographic size of Wisconsin, the distribution of population and economic activity centers within the state, and the accessibility of major airports located in adjacent states, Wisconsin's air travel market is predominantly for trips to and from the state. Airlines are typically not used for travel within the state. Much of the airline service provided at Wisconsin's airports is designed to feed into networks of domestic and international services at major hub airports such as O'Hare International, Minneapolis-St. Paul International and Detroit Metropolitan/Wayne County.

Figure 4
Airports with Commercial Air Passenger Service



Forecast enplanements for Wisconsin's nine airports with commercial air passenger service on a year-round basis are presented in Table 2. Embedded in the forecasts is an underlying assumption that an adequate supply of air service with pricing and service level conditions similar to those occurring in the base year will continue throughout the planning period.

Table 2: Forecast Enplanements (thousands)

Associated City	Airports w/ Commercial Passenger Service	Forecast Years		
		2000	2010	2020
Appleton	Outagamie County	234	273	303
Eau Claire	Chippewa Valley Regional	46	65	76
Green Bay	Austin Straubel International	381	502	588
La Crosse	La Crosse Municipal	153	201	231
Madison	Dane County Regional	763	1,005	1,208
Milwaukee	General Mitchell International	3,104	5,047	6,326
Mosinee	Central Wisconsin	199	267	302
Oshkosh	Wittman Regional	24	40	44
Rhinelander	Rhinelander-Oneida County	46	59	60
Totals		**4,950**	**7,459**	**9,138**

Note: In addition to the airports listed, there are 3 airports with seasonal service only -- Door County Cherryland; Eagle River Union; and, Lakeland/Noble F. Lee Memorial (Minocqua).

As shown in Table 2, the total number of air carrier enplanements in Wisconsin are projected to increase by approximately 85 percent between forecast years 2000 and 2020. This is equivalent to an annualized growth rate of about 4 percent. In forecast year 2000, GMIA's enplanements account for 63 percent of that projected for the entire state. In forecast year 2020, GMIA's share of the statewide total becomes 69 percent.

The forecasts of enplanements were converted into forecasts of air carrier operations using the results of an extensive review of likely changes in aircraft seating capacities, service frequencies and load factors (passengers divided by available seats). The consultant team concluded that forecast enplanement growth at Wisconsin's commercial air carrier airports can be accommodated with modest increases in service frequencies and in aircraft seating capacities.

The consultant team's forecasts of air carrier operations are presented in Table 3. Commercial air carrier operations are forecast to increase during the planning period for all but two of Wisconsin's air carrier airports. Forecast operations for both Outagamie County and Rhinelander show a decline between forecast years 2010 and 2020. For these two airports, the projected use of slightly larger aircraft will enable the forecast demand to be met with fewer scheduled flights during the 21-year planning period.

Table 3: Forecast Aircraft Operations by Commercial Air Passenger Carriers

Associated City	Airports w/ Commercial Passenger Service	Forecast Years		
		2000	2010	2020
Appleton	Outagamie County	16,400	16,800	16,500
Eau Claire	Chippewa Valley Regional	4,200	5,500	5,600
Green Bay	Austin Straubel International	22,800	26,800	28,200
La Crosse	La Crosse Municipal	9,600	11,800	12,600
Madison	Dane County Regional	40,200	46,700	48,800
Milwaukee	General Mitchell International	143,100	208,400	251,600
Mosinee	Central Wisconsin	16,700	20,000	20,100
Oshkosh	Wittman Regional	3,400	5,600	6,300
Rhinelander	Rhinelander-Oneida County	4,200	4,900	4,600
Totals		**260,600**	**346,500**	**394,300**

Note: Airports with seasonal commercial service are not included in this table. The airports with seasonal service are Door County Cherryland, Eagle River Union and Lakeland/Noble F. Lee Memorial.

As shown in Table 3, the total number of air carrier operations in Wisconsin are projected to increase by approximately 51 percent between forecast years 2000 and 2020. This is equivalent to an annualized growth rate of about 2.4 percent. In forecast year 2000, GMIA's air carrier operations account for 55 percent of that projected for the entire state. In forecast year 2020, GMIA's share of the statewide total becomes 64 percent.

Commercial Air Cargo Service

Wisconsin's air cargo market has not only been shaped by air cargo providers but also by the state's excellent highway system and the emergence of a global marketplace for Wisconsin manufacturers. The six primary air cargo airports in Wisconsin are: General Mitchell International Airport (Milwaukee); Austin Straubel International (Green Bay); Central Wisconsin (Mosinee); Dane County Regional (Madison); Outagamie County (Appleton); and Rock County (Janesville/Beloit). General Mitchell International Airport (GMIA) is Wisconsin's dominant air cargo airport handling about 75 percent of the state's air cargo shipments. GMIA also serves as a hub for air cargo shipments from other parts of the state.

The air cargo carriers operating in Wisconsin also use feeder air services originating at other airports in the state. Rather than maintain and operate a fleet of small aircraft, the integrated express carriers contract for on-demand service with a variety of aircraft operators. Contracted feeder services are provided from the following airports: Baraboo-Wisconsin Dells, Chippewa Valley Regional (Eau Claire), Iowa County (Mineral Point), La Crosse Municipal, Menomonie Municipal-Score Field, Rhinelander-Oneida County, and Rice Lake Regional-Carl's Field. The geographic locations of Wisconsin's air cargo airports, both primary and feeder, are shown in Figure 5.

Wisconsin's location creates a unique state air cargo market because of the proximity of two large international airports in adjacent states -- O'Hare International Airport and Minneapolis-St. Paul International Airport. The total volume of air cargo generated at Wisconsin's 6 primary air cargo airports combined is about one-third of that generated at Minneapolis-St. Paul International and about one-fourth of that generated at O'Hare International. These two airports compete directly for Wisconsin's air cargo market, especially for international shipments.

The air cargo carriers operating from Wisconsin's airports may choose to truck cargo shipments with Wisconsin origins and destinations to and from these two airports. UPS may also choose to truck air cargo shipments with Wisconsin origins and destinations to and from its regional hubbing facility at the Greater Rockford Airport. The lack of available data on the volume of air cargo trucked to hubs like O'Hare and Minneapolis/St. Paul precluded an accurate assessment of how large this market segment is relative to the volume of air cargo moving through Wisconsin's air cargo airports.

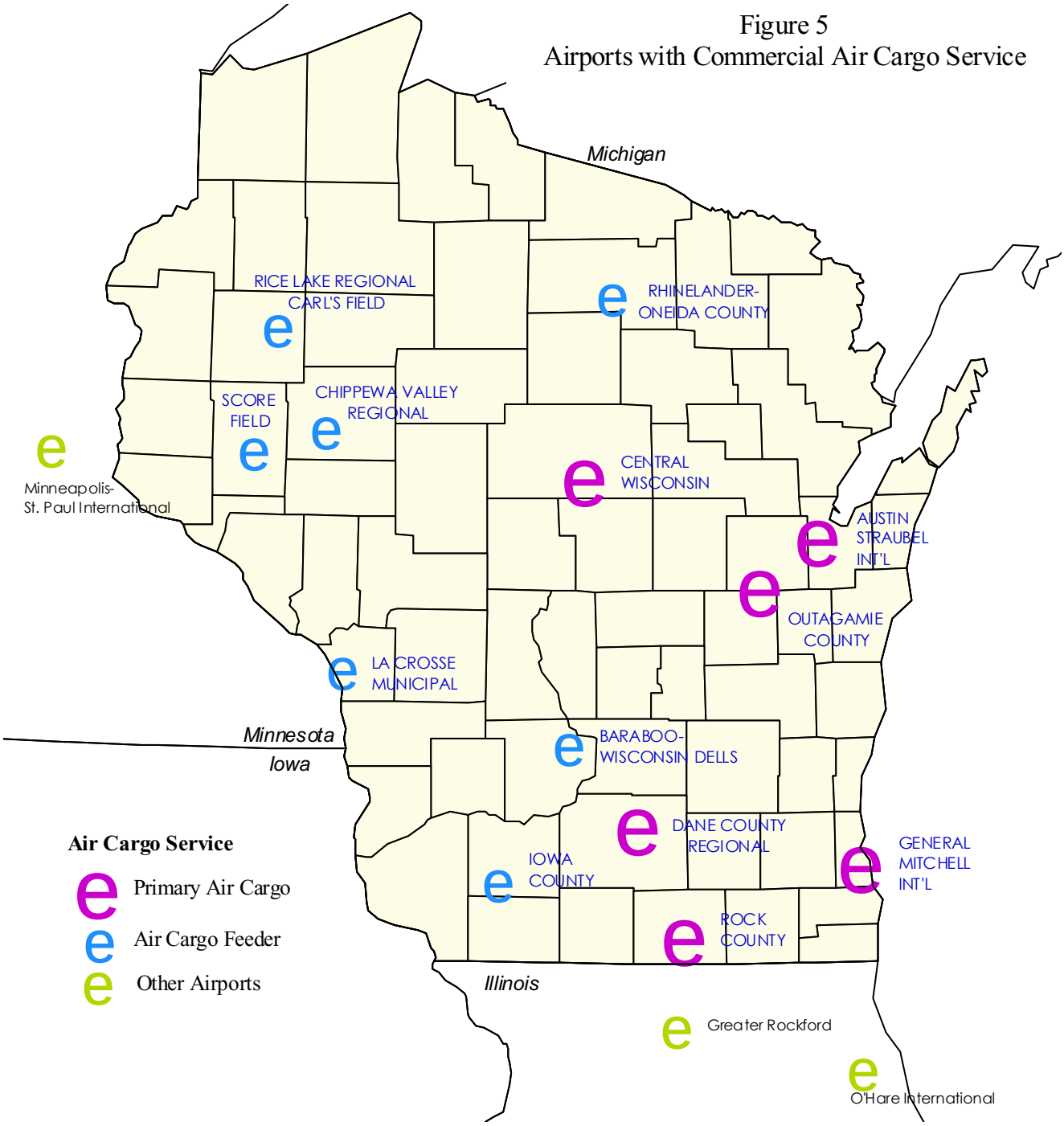
The following observations were drawn from the analysis of Wisconsin's air cargo market.

- From a business perspective, several key factors influence corporate decisions on whether or not to ship via air cargo. They include: availability of air cargo service; shipping cost; elapsed time to final delivery; access to the nearest airport; reliability of delivery service; and, to a lesser extent, special facilities which may be required to handle fragile or live goods.

- Smaller businesses, whose customers tend to be in local markets, have a preference for trucking but will use air cargo as a back-up alternative for time-sensitive shipments. For larger businesses, prompt and reliable service by an air cargo carrier is a major competitive advantage and is the second most important consideration after cost.

- Unscheduled, "on-demand" air cargo services are a growing market. For example, Rock County Airport has experienced rapid growth because of the increased use of air charter services by a major manufacturer located in Janesville.

Figure 5
Airports with Commercial Air Cargo Service



Several factors are likely to impact the supply-side of Wisconsin's air cargo market in the future. They include: the availability of adequate airside infrastructure (NAVAIDS, longer runways, etc.); the availability of adequate landside infrastructure (air cargo facilities and airport access roads); the costs of mitigating adverse environmental impacts; competition from other airports in adjacent states; and, corporate business decisions made by the carriers. Changes in manufacturing processes may also impact the demand for air cargo services in the future.

Forecasts of annual air cargo movements at GMIA and at the other five primary air cargo airports were generated and are summarized in Table 4. The forecasts were predicated on the assumption that an adequate supply of commercial air cargo service with pricing and service conditions similar to those in the base year will continue throughout the forecast period.

Table 4: Forecast Air Cargo Shipments (millions of pounds)

Primary Air Cargo Airports	Forecast Years		
	2000	2010	2020
General Mitchell International	351.9	573.3	828.5
Other Primary Cargo Airports*	52.5	69.4	92.0
Totals	**404.4**	**642.7**	**920.5**

*Austin Straubel International (Green Bay), Central Wisconsin (Mosinee), Dane County Regional (Madison), Outagamie County (Appleton) and Rock County (Janesville/Beloit).

As shown in Table 4, GMIA dominates the Wisconsin air cargo market and its dominance is projected to continue throughout the forecast period. In forecast year 2000, air cargo shipments at GMIA are projected to account for 87 percent of the shipments recorded at all of the state's primary air cargo airports combined. Air cargo shipments at GMIA are projected to account for 90 percent of the statewide total in 2020. Between 2000 and 2020, air cargo shipments statewide are forecast to increase by 128 percent. This is equivalent to an annualized growth rate of 6.4 percent.

The forecasts of the air cargo movements presented above were converted into forecasts of air cargo aircraft operations using a set of assumptions about how the air cargo carriers are likely to operate in the future. The resultant forecasts of all-cargo aircraft operations for five of Wisconsin's six primary air cargo airports are shown in Table 5. Austin Straubel International is not included because nearly all of the air cargo shipped to and from that airport are carried in the cargo holds of commercial air passenger aircraft. The forecast all-cargo aircraft operations for Wisconsin's air cargo feeder airports are also shown in Table 5.

Table 5: Forecast Aircraft Operations by Commercial Air Cargo Carriers

Associated City	Airport	Forecast Year		
		2000	2010	2020
Appleton	Outagamie County	2,080	2,080	2,600
Baraboo	Baraboo-Wisconsin Dells	520	1,040	1,040
Eau Claire	Chippewa Valley Regional	1,040	1,040	1,040
Janesville	Rock County	1,090	1,090	1,090
La Crosse	La Crosse Municipal	3,640	4,160	4,680
Madison	Dane County Regional	2,600	2,600	2,600
Menomonie	Menomonie Muni.-Score Field	1,040	1,040	1,560
Milwaukee	General Mitchell International	16,850	17,890	19,450
Mineral Point	Iowa County	1,040	1,040	1,040
Mosinee	Central Wisconsin	2,080	2,080	2,080
Rhinelander	Rhinelander-Oneida County	1,040	1,040	1,040
Rice Lake	Rice Lake Regional-Carl's Field	1,040	1,040	1,040
Totals		**34,060**	**36,140**	**39,260**

*The air cargo being shipped into and out of the Rock County Airport is carried by charter operators under contract with General Motors using a wide variety of aircraft depending on the size and weight of the load

As shown in Table 5, the all-cargo aircraft operations forecast to occur at GMIA account for about one-half of the statewide forecasts for all airports combined. In 2000, all-cargo aircraft operations forecast to occur at GMIA are projected to be 48 percent of the statewide forecast. In 2020, GMIA's portion will rise to 50 percent of the statewide forecast.

General Aviation in Wisconsin

General aviation includes a wide range of aviation activities and includes all segments of the aviation industry except air carrier and military activity. General aviation activities range from the training of new pilots through sport, recreational, and personal flying to a wide variety of business related flying, such as corporate transportation, charter, and air taxi activities. General aviation also encompasses emergency shipments; aerial photography; medical services including "flight for life" operations; and crop dusting. Aircraft used in general aviation range from the one-seat, single engine piston aircraft to the long-range corporate jet and helicopters.

General aviation activity is common to all 100 airports comprising the *State Airport System*, including those airports with scheduled commercial passenger and cargo services. General aviation plays a key role in the state's air transportation system and serves many Wisconsin communities that are not directly served by commercial air carriers. General aviation links together each airport in the *State Airport System*, attracts new industries and jobs, stimulates local sales and general

business activity, and contributes to the overall economic health and development of communities and regions throughout the state.

Two similar processes were employed to forecast the number of general aviation aircraft that would be based at each airport in the *State Airport System* during the 21-year planning period. One process was developed by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the 11 airports located within Southeastern Wisconsin. The resultant forecasts were used in the ***Regional Airport System Plan*** prepared and adopted by SEWRPC. The other process was developed by the consultant team for all airports in the *State Airport System*. Although this process also yielded forecasts of based aircraft for the 11 airports located within Southeastern Wisconsin, they were replaced by the based aircraft forecasts prepared by SEWRPC. The two sets of forecasts were consistent and compatible.

A statewide summary of the forecasts based general aviation aircraft for the 100 airports comprising the *State Airport System* is presented in Table 6. In order to portray the importance of general aviation in southeastern Wisconsin to the entire state, the universe of *State Airport System* airports has been divided into two components: (1) the 11 airports located within the Southeastern Wisconsin Region; and, (2) the 89 airports located outside of the Southeastern Wisconsin Region. The airports located within southeastern Wisconsin are: Capitol Drive (Brookfield), Burlington Municipal, East Troy Municipal, General Mitchell International, Hartford Municipal, John H. Batten (Racine), Kenosha Regional, Lawrence J. Timmerman (Milwaukee), Sylvania (Sturtevant), Waukesha County-Crites Field, and West Bend Municipal.

On a statewide basis, the number of general aviation aircraft based at the airports comprising the *State Airport System* are projected to increase by about 9.5 percent between forecast years 2000 and 2020. This is equivalent to an annualized growth rate of slightly less than 0.5 percent. The eleven airports located within the Southeastern Wisconsin region are projected to account for nearly one-third of the general aviation fleet based at all *State Airport System* airports combined.

Table 6: Forecasts of Based General Aviation Aircraft

	Forecast Year		
***State Airport System (SAS)* Airports**	**2000**	**2010**	**2020**
All *SAS* Airports within SE Wisconsin	1,231	1,306	1,386
All *SAS* Airports outside SE Wisconsin	2,695	2,786	2,912
All *SAS* Airports	**3,926**	**4,092**	**4,298**

The forecasts of total general aviation operations for each airport in the *State Airport System*, were developed using activity rates, i.e., total general aviation operations per based aircraft. For the airports in Southeastern Wisconsin, the forecast activity rates were derived from the ***Regional Airport System Plan*** prepared by SEWRPC. For tower-controlled airports not located within Southeastern Wisconsin, airport-specific activity rates were developed. For the remaining airports not located within Southeastern Wisconsin, activity rates were developed for each category of airport classification. For all airports not located within Southeastern Wisconsin activity rates were assumed to remain constant throughout the planning period. Forecasts of aircraft operations for a

given airport were then determined by simply multiplying the appropriate activity rate by the forecasts of based aircraft for that airport.

A statewide summary of forecast general aviation operations for the 100 airports comprising the *State Airport System* is presented in Table 7. In order to portray the importance of general aviation in southeastern Wisconsin to the entire state, the universe of *State Airport System* airports has been divided into two components: first, the 11 airports located within the Southeastern Wisconsin Region; and second, the 89 airports located outside of the Southeastern Wisconsin Region.

Table 7: Forecasts of Total General Aviation Aircraft Operations

	Forecast Year		
***State Airport System (SAS)* Airports**	**2000**	**2010**	**2020**
All *SAS* Airports within SE Wisconsin*	729,400	852,000	907,800
All *SAS* Airports outside SE Wisconsin	1,673,400	1,728,300	1,807,200
All *SAS* Airports	**2,402,800**	**2,580,300**	**2,715,000**

On a statewide basis, the number of total general aviation operations at the airports comprising the *State Airport System* are projected to increase by approximately 13 percent between forecast years 2000 and 2020. This is equivalent to an annualized growth rate of about 0.6 percent. In the year 2020, the eleven airports located within the Southeastern Wisconsin region are projected to account for nearly one-third of total general aviation operations at all *State Airport System* airports combined.

Military Aviation Activity

The customary way to forecast military aviation activity in a statewide system planning process is to hold current levels constant into the future. Any significant increase in military activity would likely be due to large-scale national defense emergencies which cannot be foreseen. Accordingly, military aircraft activity in Wisconsin was forecast to remain stable throughout the entire planning period. Military aircraft are currently based at only 4 of the 100 airports comprising the *State Airport System*. The forecast numbers of military aircraft based at each of the four are shown in Table 8.

Table 8: Forecast Based Military Aircraft

	Forecast Years		
Airport	**2000**	**2010**	**2020**
Dane County Regional	40	40	40
General Mitchell International	21	21	21
Sparta/Fort McCoy	3	3	3
West Bend Municipal	15	15	15
Total	**79**	**79**	**79**

In addition to the airports listed in Table-8, a significant amount of military aviation activity takes place at Volk Field in Juneau County. Because Volk Field is not open to the general public, it was not included in the *State Airport System*.

Although military aircraft are based at only four of the 100 airports comprising the *State Airport System*, military aircraft operations were recorded at many of the system airports The forecasts of military aviation operations at airports in the *State Airport System* are included in the forecasts of total aircraft operations presented in the following section.

Total Aircraft Operations

The total number of forecast aircraft operations was compiled for each airport in the *State Airport System* by summing the forecast aircraft operations for commercial air passenger service, commercial air cargo service, general aviation including corporate and business, and military aviation. The resultant forecasts of total activity statewide for forecast years 2000, 2010 and 2020 are shown in Table 9. Using year 2020 forecasts of total aircraft operations as the measure, the 12 busiest airports in Wisconsin were identified and are listed in Table 9. Each airport in this set is forecast to have more than 80,000 total aircraft operations in 2020.

Table 9: Twelve Busiest Airports by Total Aircraft Operations

		Forecast Year		
Associated City	**Airport Name**	**2000**	**2010**	**2020**
Appleton	Outagamie County	77,640	82,040	87,560
Brookfield	Capitol Drive	72,810	78,010	83,210
Green Bay	Austin Straubel International	89,590	95,290	101,890
Janesville	Rock County	87,210	88,710	91,710
Kenosha	Kenosha Regional	113,300	169,000	185,800
La Crosse	La Crosse Municipal	87,630	93,450	97,870
Madison	Dane Country Regional	167,400	176,000	183,700
Milwaukee	General Mitchell International	215,000	268,440	303,100
Milwaukee	Lawrence J. Timmerman	88,610	84,010	83,310
Oshkosh	Wittman Regional	83,970	87,770	90,470
Waukesha	Waukesha County-Crites Field	87,100	130,000	139,500
West Bend	West Bend Municipal	90,900	104,000	117,700
Subtotal for 12 Busiest *SAS* Airports		**1,261,160**	**1,456,720**	**1,565,820**
Total Operations for All *SAS* Airports		**2,755,230**	**3,020,720**	**3,209,460**
12 Busiest Airports as Percent of Total		**45.8 %**	**48.2 %**	**48.8 %**

As shown in Table 9, annual total aviation operations for all airports comprising the *State Airport System* are forecast to increase by 16.5 percent between 2000 and 2020. This equates to an annualized increase of 0.8 percent. For the state's 12 busiest airports combined, the increase in total

aviation operations is forecast to be 24.2 percent between 2000 and 2020. This translates into an annualized increase of approximately 1 percent.

Economic Benefits of Aviation

The *State Airport System* links Wisconsin businesses and residents to the rest of the nation and the world. Both commercial air carrier airports and general aviation airports are important resources for corporations seeking to expand or locate in the state. In addition to commercial air service and general aviation facilities, aviation provides *quality of life* amenities such as emergency medical services, flight training, law enforcement, and environmental management. Airports and their associated activities are also economic assets to communities, providing employment, purchasing goods and services from other businesses, and generating income as aviation-related spending circulates through the economy. Aviation is clearly a significant contributor to the economic vitality of Wisconsin communities and the state as a whole.

The *Wisconsin Aviation Impact Study,* completed by WisDOT in 1998, defined the economic benefits of aviation in Wisconsin generated by the 100 airports comprising the *State Airport System*. The study focused on the importance of aviation as an industry to the Wisconsin economy and measured its economic significance in terms of jobs, personal income, and output (dollars introduced into the economy). The study findings are summarized in Table 10.

Table 10: Economic Benefits of All Aviation Activity (1995)

Economic Indicator	Category of Impact			Combined Impact
	Direct	Indirect	Induced	
Jobs	15,626	22,591	3,240	41,458
Personal Income	$354 million	$345 million	$72 million	$771 million
Output	$1,010 million	$911 million	$205 million	$2,127 million

Note: *Jobs* are expressed as full-time equivalents. All monetary values shown for both *Personal Income* and *Output* are expressed in 1995 dollars.

Reliever Airports

Reliever airports are general aviation airports located in or near metropolitan areas that relieve general aviation congestion and enhance safety at large commercial service airports. Airports that are designated as general aviation reliever airports are included in the *National Plan of Integrated Airport Systems (NPIAS)* and are eligible for federal funding.

At the outset of the planning process, the FAA requested that the Department study the need to include additional airports in Wisconsin's reliever system. At the time, a separate federal funding category existed that provided additional financial assistance for improvements to both publicly and privately-owned airports that were designated relievers. The need for additional reliever airports in three major metropolitan regions was analyzed. The three regions are: Southeastern Wisconsin, Madison/Dane County, and Wisconsin's portion of the Twin Cities metropolitan region, specifically, Polk and St. Croix counties.

The special FAA funding category for reliever airports was discontinued in FY 1997. Federal funding for each of Wisconsin's 9 designated reliever airports is now provided through Wisconsin's federal block grant program. This program funds all 72 general aviation airports in the state that are eligible for federal aid. As a result, the significance of reliever designation now only benefits privately-owned airports by qualifying them to receive federal aid for improvements.

Although the *State Airport System Plan* recommends reliever designation for 3 Southeastern Wisconsin airports (Burlington, East Troy and Sylvania), the benefit of this designation applies only to Sylvania since it would qualify the airport to receive federal funding for improvements. If the owners of Sylvania indicate an interest in pursuing the reliever designation, the Department will support the request. Burlington and East Troy are publicly-owned airports and are already eligible for federal funds. Consequently, a reliever designation would not have any impact on the current operation or funding eligibility of these airports.

A detailed analysis of the need for an additional reliever airport for the Dane County Regional Airport (DCRA) was undertaken as part of this planning effort. Based on this analysis, the Bureau of Aeronautics requested that the FAA designate Blackhawk Field (Cottage Grove) as a reliever to DCRA. This request was formally approved by the FAA in January 1997. Blackhawk Airfield serves the eastern portion of the Madison metropolitan area. Morey Airport (Middleton), designated as a reliever in 1988, serves the western portion.

The current system of reliever airports for the Minneapolis-St. Paul International Airport appears to be adequate and does not require expansion into Wisconsin at this time. WisDOT will, however, continue to work with local officials to ensure that the airport improvement programs for New Richmond Municipal in St. Croix County and L.O. Simenstad Municipal (Osceola) in Polk County take into account the possibility that these two airports could become relievers in the future.

Recommended Modifications to the *NPIAS*

To be eligible for federal funds, an airport must be included in the ***National Plan of Integrated Airport Systems (NPIAS)*** which is published by the FAA every two years. The primary objective of the NPIAS is to provide the public with reasonable access to a safe and adequate national system of public-use airports. The ***NPIAS*** takes into account the diverse needs of communities and the various segments of aviation and coordinates planned airport development with plans for air traffic, approach and navigational aids, and other components of the national air transportation system. The ***NPIAS*** is formulated in conjunction with state and regional airport system plans.

Based on the analysis conducted for this planning effort, WisDOT would support the following ***NPIAS*** modification:

- Designate Burlington Municipal and East Troy Municipal as *Reliever* airports to General Mitchell International Airport. (These two publicly-owned airports are currently in the NPIAS and are classified as *General Utility*.)

- Include the privately-owned Sylvania Airport (Racine) as a *Reliever* to General Mitchell International Airport.

- Add Tri-County Regional Airport (Lone Rock) and Bloyer Field (Tomah).

- Delete three *existing* airports currently listed in the ***NPIAS*** because they are not included in the state airport system as defined by this plan. These airports are Bloomer, Jana (Edgerton) and Waupun. All three are privately-owned, public-use airports. Because they have not been designated as *Reliever* airports, they are not eligible for federal and state airport improvement funds.

- Delete three *potential* airports listed in the ***NPIAS*** because they are not included in the *State Airport System* as defined by this plan. They were to be located in the vicinity of River Falls, Thorp and Whitehall. The analysis of aviation forecasts and generalized airport service areas indicates that the existing system of public-use airports will be sufficient to meet Wisconsin's current and projected aviation demands.

Upon FAA's approval of the above listed recommendations, 86 airports in the S*tate Airport System* will be eligible for federal airport improvement funds.

Airport Improvement Needs

This plan has generated airport improvement needs for three categories of capital projects.

- *Pavement reconstruction projects* which include the reconstruction and strengthening of existing pavements, i.e., runways, taxiways, and aprons.

- *Instrument approach capability* projects which enhance the ability of airports to accommodate a wider spectrum of aircraft and adverse weather conditions. The primary components of this category are: runway lighting; visual landing aids; NAVAIDS, and land acquisition to meet protection zone standards for runways and taxiways.

- *Airport service level projects* which are designed to enhance the safety of the airport, to serve forecast aviation activity and accommodate the critical aircraft associated with a given airport classification. These projects include the new construction or improvement of runways, taxiways, and aprons to meet the design guidelines recommended in this plan. Also included is the installation of airfield lighting such as runway and taxiway lights.

Through the application of appropriate airport development guidelines, improvement needs were generated within each of these three categories for each airport in the *State Airport System*. The forecast needs associated with each airport were then aggregated to produce forecasts of statewide system needs within each category.

Alternative forecasts of needs within the three categories of capital projects were generated through the application of three sets of alternative policy scenarios. For each improvement category, the

first policy scenario represents the ideal conditions which could be achieved through the application of federal airport development guidelines without regard to cost and common practice in Wisconsin. Thus the first policy scenario could be characterized as the "fiscally unconstrained" alternative. The second and third policy scenarios represent the achievement of less than ideal conditions taking into account cost and common practice in Wisconsin. Thus the second and third policy scenarios could be characterized as the "fiscally constrained" alternatives.

Because three policy scenarios were uniquely and independently developed for each category of airport improvement projects, each set of policy scenarios did not constitute an alternative plan. Rather the resultant 3x3x3 matrix of possible combinations constituted a menu of options which were mixed and matched to produce a recommended set of policy scenarios.

Recommended Plan

Qualitative analyses of the costs and benefits associated with each policy scenario yielded a recommended set of policy scenarios for each category of projects. With the exception of the pavement condition indices, the *Recommended Plan* embodies the set of airport development thresholds presented in Table 11.

Table 11: Airport Development Thresholds Embodied in Recommended Plan

Airport Class.*	Pavement Condition Indices	Instrument Approach Capability Minimums	Supplemental Operations Thresholds
AC/C	Runways: 70 Taxiways: 60 Aprons: 60	200 foot ceiling ½ mile visibility	None applied.
T/C	Runways: 65 Taxiways: 55 Aprons: 55	200 foot ceiling ½ mile visibility	Parallel taxiway on primary requires more than 20,000 annual operations. Parallel taxiway on crosswind requires more than 30,000 annual operations.
GU & BU	Runways: 55 Taxiways: 45 Aprons: 45	$\geq$ 400 foot ceiling $\geq$ 1 mile visibility	Parallel taxiway on primary requires more than 20,000 annual operations. Parallel taxiway on crosswind requires more than 30,000 annual operations.

*AC/C = Air Carrier/Air Cargo; T/C = Transport Corporate; GU = General Utility; and, BU = Basic Utility.

The application of alternative pavement condition index thresholds allows WisDOT to determine when a pavement needs to be repaired or replaced. Thresholds identified in the *Recommended Plan* represent the threshold levels established by WisDOT for purposes of qualifying a pavement improvement project for funding. An existing pavement with a threshold higher than the *Recommended Plan* would not qualify for funding. An existing pavement with a threshold equal to or less than that shown in the *Recommended Plan* would qualify for funding. In practice, pavements have generally deteriorated to the levels lower than the *Recommended Plan*, between the time a request for funding to reconstruct the pavement is made and the reconstruction is actually accomplished.

The *Recommended Plan* provides for the rehabilitation and maintenance of existing airport facilities and enhances the capacity of certain airports to meet forecast increases in aviation demand. The *Recommended Plan* thereby achieves specified policy objectives, especially improved aviation safety. The *Recommended Plan* contemplates neither the addition of new airports to *State Airport System*, nor the deletion of existing airports from the system during the 21-year planning period.

The estimated costs of the improvement projects generated by the application of the recommended set of airport development thresholds are summarized by airport classification and by project category in Table 12. In addition to the airport improvement needs generated on an airport-by-airport basis, a lump sum cost was included to account for apron expansions for general aviation purposes which were not forecast on an airport specific basis. These costs are shown in the row labeled *Unallocated Apron Costs*. Total costs for certain "other" types of airport improvement project needs were also included in Table 12. The three types of projects included in the row labeled *Unallocated Other Costs* are:

- *Automated Weather Observing System* stations for collecting and transmitting weather information 24 hours per day, thereby increasing the utility of an airport.

- *Weathermation* personal computers remotely located at airports to receive current weather information directly from satellites. These computers can be accessed for flight planning by pilots either at the airport or from another computer through a modem connection.

- *Airport Rescue Firefighting/Snow Removal Equipment*.

Table 12: Projected Cost of Recommended Plan* (millions of 1999 dollars)

Airport Classification	Project Categories			Total Costs
	Pavement**	Instrument Approach Capability	Airport Service Level	
Air Carrier/Cargo	332.5	8.8	347.1	688.4
Transport/Corporate	107.9	28.0	81.7	217.6
General Utility	38.1	11.9	28.8	78.8
Basic Utility	24.5	19.8	15.2	59.5
Unallocated Apron Costs	NA	NA	13.2	13.2
Unallocated Other Costs	NA	NA	NA	23.0
Total Costs	**503.0**	**68.5**	**486.0**	**1080.5**
Annualized Costs	*24.0*	*3.3*	*23.1*	*51.5*

*Based on the Recommended Set of Airport Development Thresholds presented in Table-12.

**To the degree that actual pavement work is not completed until the threshold levels are less than that shown in the *Recommended Plan* the statewide total is forecast to be $503.0 million. If actual replacement of pavements was achieved at the *Recommended Plan* level, an additional $43.6 million, a 9% increase would be needed in the planning period.

As shown in Table-12, the recommended set of policy scenarios generates a statewide total of estimated project costs for the 21-year planning period of nearly $1.1 billion in 1999 dollars. This translates into an annualized need of $51.5 million.

Funding of Airport Improvements

The total amount of funding for airport improvements in Wisconsin has varied considerably from year to year due to large fluctuations in the annual amounts of federal funds flowing into the state and due to large fluctuations in the annual amounts of local expenditures. Of the three basic funding sources, the level of state financial assistance for airport improvements has remained relatively stable and predictable.

The development of a meaningful comparison between the annualized funding need presented above and likely levels of future federal, state, and local funding would require a host of assumptions about the scope and nature of future federal and state aviation programs which would be highly speculative at best. A conservative and reasonable solution to this dilemma is to assume that at least the "current" level of federal, state and local funding would be continued throughout the 21-year planning period. Given the large fluctuations in the historical annual total public funding levels, averaging the annual expenditures over the five most recent years of experience was selected as an appropriate way to define the "current" level of funding.

The amounts of public funding for airport improvements in Wisconsin for fiscal years '95 through '99 are summarized in Table 13. The figures shown for fiscal years '97, '98 and '99 do not include the special federal grants made to Milwaukee County for noise mitigation projects and their associated

local match amounts. This adjustment reflects the fact that noise mitigation projects of the type undertaken in Milwaukee County were not included in the forecast airport improvement needs prepared for this plan and documented above.

Table 13: Inflation Adjusted Total Funding for Airport Improvement Projects in Wisconsin (millions of '99 dollars)

Fiscal Year*	Federal	State	Local	Total
95	17.8	11.4	5.9	35.1
96	21.7	10.5	4.6	36.8
97	21.6	10.8	11.0	43.4
98	27.0	10.1	9.5	46.6
99	16.7	9.9	7.0	33.6
5-Year Average	**21.0**	**10.5**	**7.6**	**39.1**

*The state fiscal year begins July 1 and ends June 30.

As shown in Table 13, the average amount of total public funding for the fiscal year '95 through '99 period was computed to be $39.1 million in '99 dollars.

Environmental Consequences

The development of the ***Wisconsin State Airport System Plan 2020*** included a general inventory of environmental conditions at each airport in the *State Airport System* and a comparative evaluation of the environmental consequences of the *Recommended State Airport System Plan* from a statewide, system-level perspective. In general, the environmental consequences of implementing the *Recommended Plan* vary according to: (1) category of consequence, and (2) size, location, and function of the airport. Most of the environmental consequences of airport improvement projects are confined to the relatively small area of the airport itself and to areas in the airport's immediate vicinity. Because larger airports are generally located within, or adjacent to, developed, urban areas, forecast airport improvement projects for these airports generate the majority of environmental consequences forecast for the entire system. In addition, airports provide significant economic benefits to surrounding communities, economic regions, and the state as a whole. Aviation is an industry that provides employment, purchases goods and services from other Wisconsin businesses and generates incomes throughout the state as the spending by aviation businesses and their employees circulates through the economy.

Another overarching issue associated with airport improvement projects is aviation safety. Although the scope of this planning effort did not include a systematic assessment of each project's impact on aviation safety, all projects proposed in the *Recommended Plan* will improve aviation safety, either directly or indirectly. This is an important benefit of the *Recommended Plan* which must be acknowledged in the assessment of the costs and benefits of implementing the *Recommended Plan*.

Consistency with Regional Development Plans

The *Recommended State Airport System Plan* is consistent with adopted regional development goals and plans. As detailed above, the spectrum of regional development goals and plans ranges from the very detailed ***Regional Airport System Plan for Southeastern Wisconsin: 2010*** to the more general treatment of air transportation included within the *Overall Economic Development Programs* produced annually by the more rural regional planning agencies.

Continuous Planning Process

The ***Wisconsin State Airport System Plan 2020*** represents a benchmark in a continuous planning process that was initiated in by the Wisconsin Department of Transportation in the 1970's. The plan lays out a long-range vision of how the *State Airport System* should be maintained and enhanced over a 21-year planning period. The plan is dynamic and will be adjusted over time. It will be reviewed and updated as Wisconsin's transportation needs changes between now and 2020. Changes in travel patterns, economic growth and technology will dramatically affect how transportation dollars should and will be invested in future years. The plan will be updated every six years to correspond with federal program funding legislation. With each update, the public and our stakeholders will again be asked to provide feedback to further aid the department in developing and maintaining a transportation system that meets Wisconsin's needs.

Attachment #1: Existing and Future Classification of Airports

Associated City	Airport Name	Base Year 1995	Forecast Year 2000	2010	2020
Amery	Amery Municipal	GU	GU	GU	GU
Antigo	Langlade County	GU	GU	GU	GU
Appleton	Outagamie County	AC/C	AC/C	AC/C	AC/C
Ashland	John F. Kennedy Memorial	T/C	T/C	T/C	T/C
Baraboo	Baraboo-Wisconsin Dells	T/C	T/C	T/C	T/C
Barron	Barron Municipal	BU-A	BU-A	BU-A	BU-A
Black River Falls	Black River Falls	GU	GU	GU	GU
Boscobel	Boscobel	BU-B	GU	GU	GU
Boulder Junction	Boulder Junction	BU-A	BU-A	BU-A	BU-A
Boyceville	Boyceville Municipal	BU-B	BU-B	BU-B	BU-B
Brookfield	Capitol Drive	BU-A	BU-A	BU-A	BU-A
Burlington	Burlington Municipal	GU	GU	GU	GU
Cable	Cable Union	BU-B	BU-B	BU-B	BU-B
Cassville	Cassville Municipal	BU-A	BU-A	BU-A	BU-A
Chetek	Chetek Municipal-Southworth	BU-A	BU-A	BU-A	BU-B
Clintonville	Clintonville Municipal	T/C	T/C	T/C	T/C
Cornell	Cornell Municipal	BU-A	BU-A	BU-A	BU-A
Cottage Grove	Blackhawk Airfield	BU-B	BU-B	BU-B	BU-B
Crandon	Crandon Municipal	BU-A	BU-A	BU-A	BU-B
Crivitz	Crivitz Municipal	BU-A	BU-A	BU-A	BU-A
Cumberland	Cumberland Municipal	BU-B	BU-B	BU-B	BU-B
Eagle River	Eagle River Union	T/C	T/C	T/C	T/C
East Troy	East Troy Municipal	GU	GU	GU	GU
Eau Claire	Chippewa Valley Regional	AC/C	AC/C	AC/C	AC/C
Ephraim	Ephraim-Fish Creek	BU-A	BU-A	BU-A	BU-A
Fond du Lac	Fond du Lac County	T/C	T/C	T/C	T/C
Fort Atkinson	Fort Atkinson Municipal	GU	GU	GU	GU
Friendship	Adams County Legion Field	BU-B	BU-B	BU-B	BU-B
Grantsburg	Grantsburg Municipal	BU-A	BU-A	BU-A	BU-A
Green Bay	Austin Straubel International	AC/C	AC/C	AC/C	AC/C
Hartford	Hartford Municipal	GU	GU	GU	GU
Hayward	Sawyer County	T/C	T/C	T/C	T/C
Hillsboro	Joshua Sanford Field	BU-A	BU-A	BU-A	BU-A
Janesville	Rock County	AC/C	AC/C	AC/C	AC/C
Juneau	Dodge County	T/C	T/C	T/C	T/C

Attachment #1 (Continued): Existing and Future Classification of Airports

Associated City	Airport Name	Base Year	Forecast Year		
		1995	2000	2010	2020
Kenosha	Kenosha Regional	T/C	T/C	T/C	T/C
La Crosse	La Crosse Municipal	AC/C	AC/C	AC/C	AC/C
La Pointe	Madeline Island	BU-B	GU	GU	GU
Ladysmith	Rusk County	GU	GU	GU	GU
Lancaster	Lancaster Municipal	BU-A	BU-A	BU-A	BU-A
Land O' Lakes	King's Land O'Lakes	GU	GU	GU	GU
Lone Rock	Tri-County Regional	GU	GU	GU	GU
Madison	Dane County Regional	AC/C	AC/C	AC/C	AC/C
Manitowish Waters	Manitowish Waters	BU-B	BU-B	BU-B	BU-B
Manitowoc	Manitowoc County	T/C	T/C	T/C	T/C
Marshfield	Marshfield Municipal	T/C	T/C	T/C	T/C
Medford	Taylor County	T/C	T/C	T/C	T/C
Menomonie	Menomonie Muni.- Score Field	T/C	T/C	T/C	T/C
Merrill	Merrill Municipal	GU	GU	GU	GU
Middleton	Morey	GU	GU	GU	GU
Milwaukee	General Mitchell International	AC/C	AC/C	AC/C	AC/C
Milwaukee	Lawrence J. Timmerman	GU	GU	GU	GU
Mineral Point	Iowa County	BU-B	T/C	T/C	T/C
Minocqua	Lakeland/Noble F. Lee Memorial	T/C	T/C	T/C	T/C
Monroe	Monroe Municipal	GU	GU	GU	GU
Mosinee	Central Wisconsin	AC/C	AC/C	AC/C	AC/C
Necedah	Necedah	BU-A	BU-A	BU-A	BU-A
Neillsville	Neillsville Municipal	BU-B	BU-B	BU-B	GU
New Holstein	New Holstein Municipal	BU-B	BU-B	BU-B	BU-B
New Lisbon	Mauston-New Lisbon Union	BU-B	BU-B	BU-B	BU-B
New Richmond	New Richmond Municipal	GU	GU	GU	GU
Oconto	Oconto Municipal	BU-B	BU-B	BU-B	BU-B
Osceola	L.O. Simenstad Municipal	GU	GU	GU	GU
Oshkosh	Wittman Regional	AC/C	AC/C	AC/C	AC/C
Palmyra	Palmyra Municipal	BU-B	BU-B	BU-B	BU-B
Park Falls	Park Falls Municipal	BU-B	BU-B	BU-B	BU-B
Phillips	Price County	T/C	T/C	T/C	T/C
Platteville	Platteville Municipal	GU	GU	GU	GU
Portage	Portage Municipal	GU	GU	GU	GU
Prairie du Chien	Prairie du Chien	GU	T/C	T/C	T/C

Attachment #1 (Continued): Existing and Future Classification of Airports

Associated City	Airport Name	Base Year	Forecast Year		
		1995	2000	2010	2020
Prairie du Sac	Sauk Prairie	BU-B	BU-B	BU-B	BU-B
Prentice	Prentice	BU-B	BU-B	BU-B	BU-B
Racine	John H. Batten	T/C	T/C	T/C	T/C
Reedsburg	Reedsburg Municipal	T/C	T/C	T/C	T/C
Rhinelander	Rhinelander-Oneida County	AC/C	AC/C	AC/C	AC/C
Rice Lake	Rice Lake Regional - Carl's Field	T/C	T/C	T/C	T/C
Richland Center	Richland	BU-B	BU-B	BU-B	BU-B
Shawano	Shawano Municipal	GU	GU	GU	GU
Sheboygan	Sheboygan County Memorial	T/C	T/C	T/C	T/ C
Shell Lake	Shell Lake Municipal	BU-B	BU-B	BU-B	BU-B
Siren	Burnett County	GU	GU	GU	GU
Solon Springs	Solon Springs Municipal	BU-A	BU-A	BU-A	BU-A
Sparta	Sparta/Fort McCoy	T/C	T/C	T/C	T/C
Stevens Point	Stevens Point Municipal	T/C	T/C	T/C	T/C
Sturgeon Bay	Door County Cherryland	T/C	T/C	T/C	T/C
Sturtevant	Sylvania	BU-A	BU-A	BU-A	BU-A
Superior	Richard I. Bong	T/C	T/C	T/C	T/C
Three Lakes	Three Lakes Municipal	BU-A	BU-A	BU-A	BU-A
Tomah	Bloyer Field	GU	GU	GU	GU
Tomahawk	Tomahawk Regional	BU-B	BU-B	BU-B	BU-B
Viroqua	Viroqua Municipal	BU-B	BU-B	BU-B	BU-B
Washington Island	Washington Island	BU-B	BU-B	BU-B	BU-B
Watertown	Watertown Municipal	T/C	T/C	T/C	T/C
Waukesha	Waukesha County-Crites Field	T/C	T/C	T/C	T/C
Waupaca	Waupaca Municipal	GU	T/C	T/C	T/C
Wausau	Wausau Downtown	T/C	T/C	T/C	T/C
Wautoma	Wautoma Municipal	BU-B	BU-B	BU-B	BU-B
West Bend	West Bend Municipal	T/C	T/C	T/C	T/C
Wild Rose	Wild Rose Idlewild	BU-A	BU-A	BU-A	BU-A
Wisconsin Rapids	Alexander Field - South Wood Co.	T/C	T/C	T/C	T/C

AC/C = Air Carrier/Air Cargo; **T/C** = Transport Corporate; **GU** = General Utility; and, **BU** = Basic Utility.